

REMARKS

ALLOWABLE SUBJECT MATTER

Applicants note with appreciation that claims 38-40 are allowed. Claims 62 and 64 were indicated as being allowable if rewritten as independent claims to include the limitations of the base claim and any intervening claims.

NEW CLAIMS

Claims 70, 71, and 72 have been added. No new subject matter is introduced into the application by these new claims. For example, support for these claims may be found at pages 3, 10, and FIGS. 1, 2, and 3 of the application.

CLAIM REJECTIONS- 35 U.S.C § 103

Claims 49-52, 56, 57 and 67-69 were rejected under 35 U.S.C. §103(a) as being unpatentable over Miyajima (US 5,276,460) in view of Labesky (US 5,833,776). For the reasons set forth below, Applicants respectfully traverse this rejection.

Referencing Miyajima, the Final Office Action of October 19, 2010 asserts: “As shown in FIG. 2, sheet 11 is carried by friction surface 3. Friction surface 3 is a belt that is positioned on smaller radius portion 3₂.” Final Office Action at p. 8. In response, Applicants submit that no such belt is shown in Miyajima. Instead, as shown in FIG. 2 and indicated repeatedly in Miyajima, reference numeral 3 identifies a stepped roller 3 – not a belt. For example, Miyajima states:

As shown, a stepped roller 3 is associated with each end of idler 32 and made up of a larger diameter portion 3₁ and a smaller diameter portion 3₂. The stepped rollers are rotatable coaxially with, but independently of, the idler 32, and each is made of a material having a relatively high coefficient of friction.

Col. 2, lines 53-58; see also FIG. 2; Col. 3, lines 34-45; Col. 4, lines 6-10; Col. 4, lines 30-32. In other words, reference numeral 3 identifies a roller that is stepped – having two different radii at 3_1 and 3_2 , where the radius of 3_2 is less than that radius of 3_1 . Reference numeral 3 does not identify a belt, and no belt is carried upon or positioned upon the portion 3_2 having the smaller radius.

In contrast to Miyajima, independent claim 49 of the present application requires a flexible belt that is “positioned upon the portion of the rotatable roll body having a radius of r_1 ” where “radius r_1 is less than radius r_2 .” Similarly, independent claim 67 requires a friction ring carried on a portion of a rotatable roll body having a radius r_1 which is less than the radius r_2 of an axially adjacent portion. In summary, because Miyajima does not carry a flexible belt on the smaller radius portion 3_2 it does not disclose the above referenced limitations of Applicants’ claim 49 and claim 67. Labesky does not cure this deficiency. Therefore, Applicants respectfully request that the rejection of claims 49-52, 56, 57 and 67-69 be withdrawn and said claims be allowed to issue.

In addition to the above and with regard to Applicants’ claims 50 and 51, Labesky does not teach connection of its ends by a radial or non-axial movement. In fact, FIGS. 1 and 2 of Labesky that are cited by the Office Action clearly demonstrate that the ends 20 and 22 of body 10 are joined by moving the ends together along the circumferential (non-radial) direction of body 10 and inserting element 26 into opening 24 by an axial movement. In fact, radial movement of ends 20 and 22 would move these ends apart – not together for connection.

Applicants’ claim 51 also requires hooks. No hooks are shown in FIGS. 1 or 2 of Labesky. At best, Labesky’s FIGS. 1 and 2 illustrate a tongue and groove type connection.

Applicants’ claim 51 also requires hooks oriented such that during operation of the textile

machine a load is applied in a non-axial direction that locks together the pair of hooks. The Final Office Action does not identify such limitation in any prior art reference.

Applicant's claim 52 requires a flexible belt that is in tension along its length when positioned around the portion of the at least one rotatable roll body having the radius of r_1 . The Final Office Action does not identify such limitation in any prior art reference or the basis for rejection of this claim.

Claims 53-55 and 58 were rejected under 35 U.S.C. §103(a) as being unpatentable over Miyajima (US 5,276,460) in view of Labesky (US 5,833,776) and further in view of Burke et al. (US 5,507,226). Applicants request withdrawal of this rejection for the same reasons set forth in claim 49 as Burke et al. does not supply the limitations missing from Miyajima (US 5,276,460) and Labesky (US 5,833,776).

Claim 58 also requires that the fastening apparatus further comprises a pair of hooks joined to the flexible belt, wherein the flexible belt is formed from a material that is more elastic than the material used for constructing the pair of hooks. The Final Office Action does not identify such limitation in any prior art reference or the basis for rejection of this claim.

Claims 59 was rejected under 35 U.S.C. §103(a) as being unpatentable over Miyajima as modified by Labesky and further in view of Smith (US 1,554,253). Applicants request withdrawal of this rejection for the same reasons set forth in claim 49 as Smith (US 1,554,253) does not supply the limitations missing from Miyajima (US 5,276,460) and Labesky (US 5,833,776).

Claims 60, 63, and 66 were rejected under 35 U.S.C. §103(a) as being unpatentable over Burke et al. (US 5,507,226) in view of Labesky (US 5,833,776). However, neither of these references discloses a belt having two ends that are configured for connection or separation from

each other by displacement of one end relative to the other along a radial direction of the rotatable roll body. Burke et al. does not disclose a belt having ends. Labesky's ends cannot be separated by movement along the radial direction and, instead, requires movement along the axial direction. For clarity, FIG. 2 of Labesky is provided below with the addition of arrows showing the axial and radial direction.

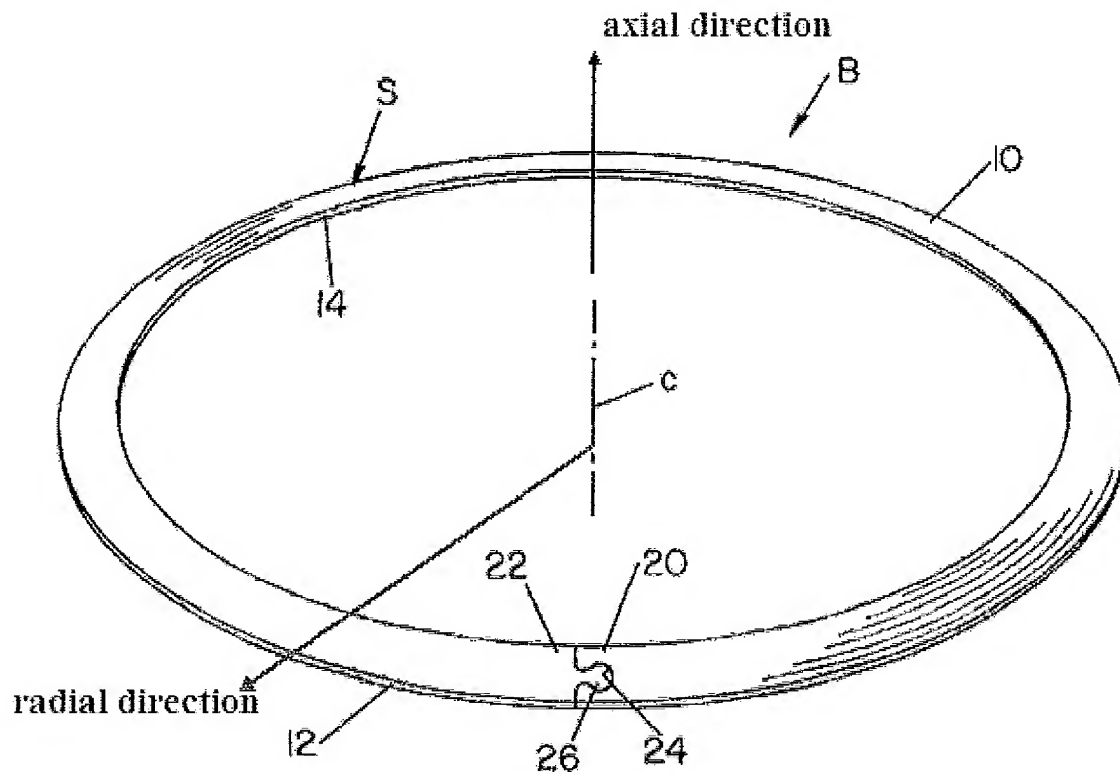


FIG. 2

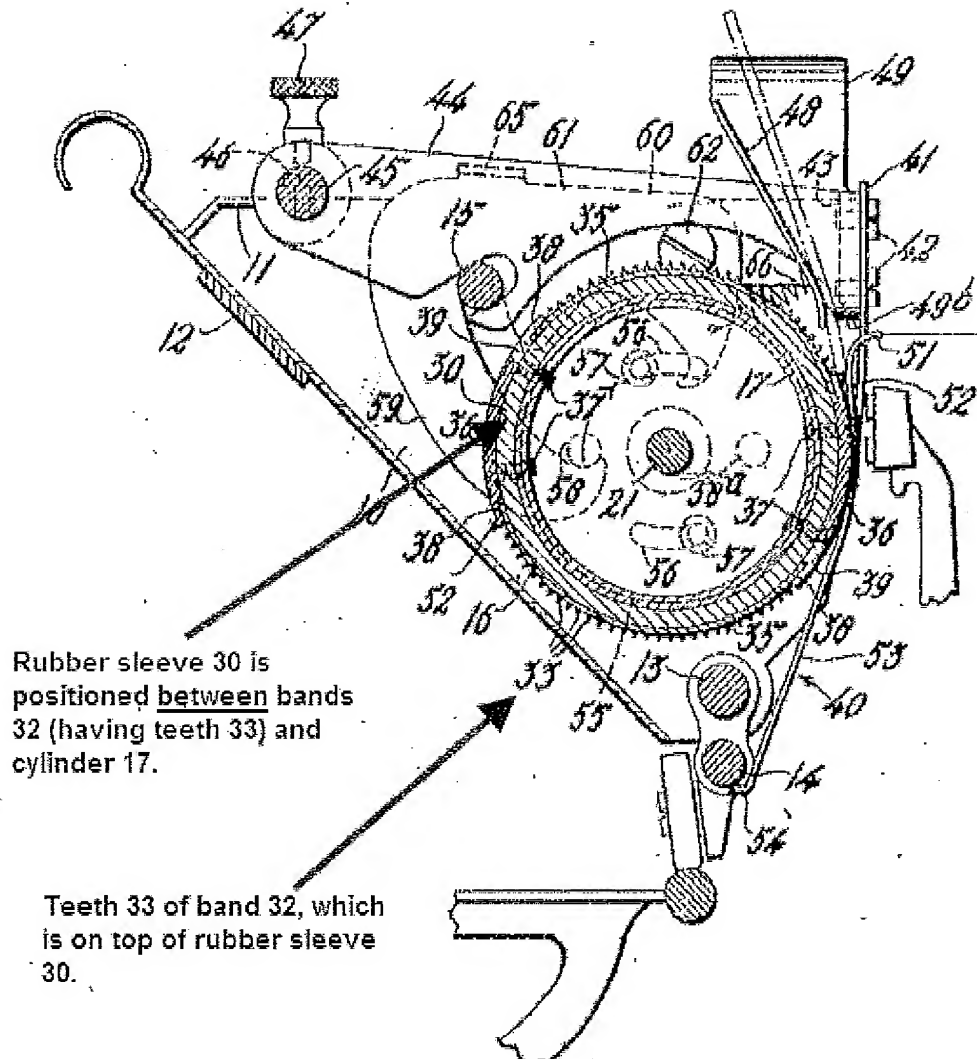
In order to disconnect Labesky's ends 20 and 22, one or both of these ends must be moved along the axial direction. Movement along the radial direction will not separate Labesky's ends 20 and 22. In fact, if Labesky's ends 20 and 22 could be separated by radial movement as suggested by the Office Action, then body 10 could not function as a Belleville spring because compression along the axial direction would simply pop ends 20 and 22 open.

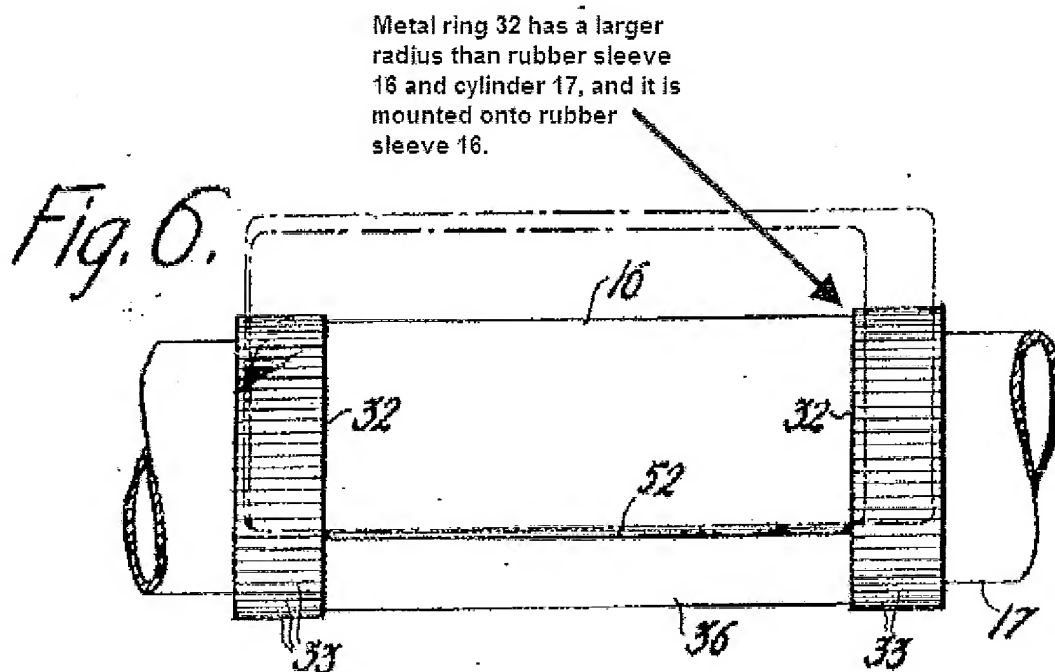
The Office Action attempts to improperly dismiss the limitation of “two ends that are configured for connection or separation from each other by displacement of one end relative to the other along a radial direction of the rotatable roll body” by asserting that such is directed to manner of employment. However, this limitation is a structural limitation regarding how the ends of the flexible belt must be constructed – not a manner of use limitation. Applicants respectfully submit that the preamble of the claim already sets forth the manner of use.

Accordingly, Applicants respectfully traverse this rejection and request that claims 60, 63, and 66 be allowed.

Finally, claims 61 and 65 were rejected under 35 U.S.C. §103(a) as being unpatentable over Burke et al. (US 5,507,226) in view of Labesky (US 5,833,776) in further view of Smith (US 1,554,253). However, Applicants respectfully submit that dependent claims 61 and 65 are patentable over these references for the same reason as set forth above with regard to independent claim 60. In addition, the Office Action at page 7 asserts that Smith “teaches the axial position of the at least one belt is maintained by differences in the radius of the rotatable roll body.” Smith does not disclose a flexible belt located on a portion of a roll body having a radius r_1 that is less than a radius r_2 of another portion of that roll body. Instead, Smith is directed to a type writing machine that has cylinder 17 of constant radius over its length as shown in Figs 1-7. As shown in Smith’s Figs. 3, 4, 6, and 7 and described at page 2, line 112 to page 3, line 38, cylinder 17 is equipped with a platen 16 comprised of a rubber sleeve 30 that is mounted onto cylinder 17. Clearly, rubber sleeve 30 must then have a radius larger than cylinder 17. In turn, metal rings 32 are mounted onto rubber sleeve 30 as shown in Figs. 3 and 6.

Fig. 3.





Accordingly, Smith's metal rings 32 are not mounted on portion of cylinder 17 (or even sleeve platen 16/rubber sleeve 30) having a radius r_1 that is less than another portion having a larger radius of r_2 . To the contrary, Smith's metal rings 32 are mounted on the largest radius possible because platen 16/rubber sleeve 30 is located between rings 32 and cylinder 17 as shown in Figs. 3 and 6. Accordingly, the position of Smith's metal rings 32 is not maintained by differences in the radius of cylinder 17 or any other rotatable body. In contrast, Applicants' claim 61 requires a belt that is mounted onto a roll body with its position maintained by differences in the radius of the rotatable roll body. Accordingly, Applicants respectfully submit that the claims are allowable and the rejection should be withdrawn.

New claims 70, 71, and 72 each present limitations not found in any of the references cited by the Final Office Action. For example, claims 71 and 72 require a fastening device that comprises two connectors, each said connector attached at respective ends of said flexible belt,

the connectors each having a curvature that corresponds to or is parallel with the curvature of the friction roll. This curvature is shown in FIGS. 2 and 3 of the application, for example. None of the references cited in the Final Office Action disclose these features.

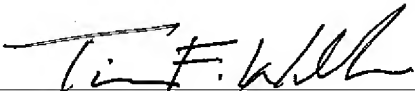
Therefore, Applicants respectfully submit that all pending claims should be allowed. If any other fee or extension of time is required to obtain the entry of this response, the undersigned hereby petitions the Commissioner to grant any necessary time and extension and authorize its charging deposit account no. 04-1403 for any such fee not submitted herewith.

Examiner Langdon is respectfully requested to contact the undersigned if any issues remain after this amendment.¹ Thank you.

Respectfully submitted,

DORITY & MANNING, P.A.

DATE: 18 JANUARY 2011

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¹ Applicants attempted to contact the Examiner but have been unable to arrange a telephone interview.